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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,203	03/14/2001	Yongjun Jeff Hu	M4065.0391/P391	1736
24998	7590	11/17/2003	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP			WRIGHT, WILLIAM G	
2101 L STREET NW			ART UNIT	
WASHINGTON, DC 20037-1526			PAPER NUMBER	
			1754	

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/805,203

Applicant(s)

HU ET AL.

Examiner

William G. Wright SR.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) 37-45 and 48-81 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 46 and 47 is/are allowed.
- 6) ☒ Claim(s) 1,3-7,15,17,19-22 and 28 is/are rejected.
- 7) ☒ Claim(s) 2,8-14,16,18,23-27 and 29-36 is/are objected to.
- 8) ☒ Claim(s) 1-81 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Applicant's arguments to the outstanding anticipation rejection are persuasive and the anticipation rejection is withdrawn.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

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Claims 1, 3-7, 15, 17, 19-22 and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chi '770 in view of Hayashide '920.

Chi teaches the forming of a layer of hemispherical grain polysilicon and oxidizing at least a portion of the hemispherical grain polysilicon layer. Oxidizing is taught at column 3 line 4 et seq. The claimed feature of the thermal oxidation is found at column 3 line 8 of the reference.

Chi lacks the teaching of the use of CVD and LPCVD deposition as required by instant claims 15 and 17.

Hayashide teaches chemical vapor deposition in the forming of a silicon layer and oxidizing of the semispherical protrusions.

This teaching is found at column 3 line 46 et seq. General oxidizing to form silicon oxide is taught in the Abstract. The teaching of a 10 minute oxidation time is found at column 7 line 52.

Chi teaches that hemispherical grain polysilicon is most easily formed on an amorphous silicon surface, note column 2 line 61 et seq. This hemispherical grain polysilicon is then oxidized. Hayashide teaches the production and oxidation of semispherical silicon at column 3 line 47 et seq. The two references are directed to the production of the same type silicon body. They both deal with the making of capacitors and

accomplish this end result in very much the same way. The Chi reference leaves open how the specific forming and oxidizing is done, thus leaving the particulars of these actions to known art procedures. The leaving of these procedures open to art methods provides motivation to apply any known art procedure such as the procedures taught in Hayashide. It would be obvious for a person skilled in the art to apply the specific procedures of Hayashide and Chi to satisfy the need for a specific procedure not specifically taught in Chi.

The applicants argue that Hayashide can add no teaching or suggestion to the disclosure of Chi. The primary reference to Chi and the supporting reference to Hayashide are well defined in their relationship under the confines of 35 U.S.C. § 103 in the outstanding Office action of Paper No. 5. Hayashide does provide legitimate features as stated in the outstanding Office action. The Abstract of Hayashide clearly states that an oxide film is formed on the surface of the silicon. Using the same process with the same materials would produce the same product. The naming of this same product a catalyst does not change the process or the product produced. The applicant's process is obvious from the combined teaching of the reference combination.

Claims 46 and 47 are allowed over the applied art. Claims 2, 8-14, 16, 18, 23-27, and 29-36 are objected to as depending from a rejected claim.

Applicant's arguments filed September 12, 2003 have been fully considered but they are not deemed to be persuasive.

The non-persuasiveness of the response is addressed in the rejection of the above remarks.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

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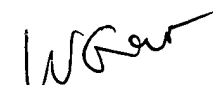
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William G. Wright, Sr. whose telephone number is (703) 305-7792. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on (703) 308-3837. The fax phone number for the organization where this application or proceeding is assigned are (703) 872-9306 for the regular communications and (703) 872-9311 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1495.

  
W. G. Wright, Sr.:cdc

November 12, 2003

  
**STEVEN BOS  
PRIMARY EXAMINER  
GROUP 1100**